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The new mode of marine governance in the UK: aspirations and challenges

Abstract

Since 2009, there has been a shift in UK marine governance with the introduction of the Marine and Coastal Access Act of which a core mechanism is marine planning, designed to replacing a fragmented, ad hoc, and bureaucratic process of marine management with a strategic, integrated, and centralised system. This shift has been justified by the UK government as a more efficient procedure for delivering sustainable development (SD), which is the overarching objective of UK environmental policy. In this article, which is based on data from key informant interviews and secondary sources, we analyse this shift to understand its objectives and the challenges facing it. The issues on which we focus include its holistic approach; its centralising tendencies; its streamlining processes; and its commitment to renewable energy. In these four issues we see tensions between aspirations and challenges, and our conclusion is that the success of the new mode of marine governance depends on satisfactorily resolving these tensions.

Keywords

UK marine governance; marine spatial planning (MSP); Marine Management Organisation (MMO); holism; centralisation; offshore wind farm policy

1. Introduction

Jay [1, p. 179] noted that "For its advocates, MSP [marine spatial planning] is an idea whose time has come, the answer to longstanding and mounting difficulties regarding human interaction with the sea". Similarly, Carneiro [2, p. 214] declared that in less than ten years, MSP has become "one of the most widely endorsed tools for integrated management of coastal and marine environments". But as

Fletcher et al [3 p. 341] pointed out, many of the 60 or so MSP projects that have been carried out "lack any publically available evaluation from which others can learn". This study is an attempt to help fill that gap by investigating the perceptions of key stakeholders about the introduction of marine planning [1] into the UK. Four factors have influenced a shift in marine governance in the UK towards marine planning during the past 20 years.[2] First, there has been growing congestion of users seeking to make use of the marine space around the country. This has caused increasing conflicts between different interests, as well as greater environmental pressure on marine resources [1]. Second, the UK is bound by the European Union (EU) Marine Strategy Framework Directive (MSFD) (2008) to ensure Good Environmental Status (GES) of its waters by 2020, and this has entailed a comprehensive reappraisal of UK marine policy. As Qiu & Jones [4] have pointed out, although the MSFD does not formally require MSP, Annex VI of the directive prescribes that Member States introduce marine plans that include management measures influencing when and where particular activities are allowed to take place. Third, the UK has had to respond to an EU initiative (2007) (expected shortly to become an MSP Directive) which urges Member States to introduce Integrated Maritime Policy (IMP) for their waters. Fourth, the UK has faced a legally binding target under the EU Renewable Energy Directive (2009) to source 20% of its total energy consumption from renewable sources by 2020 [6], and the government decided that offshore wind technology would make an important contribution to meeting that target [5]. This required a major change in marine law.

The first and fourth factors (congestion and offshore wind farms, respectively) are the main focus of this paper. The first factor was emphasised by Jay [1]. The fourth factor was emphasised by Qiu & Jones [4, p. 185]: "In a number of EU countries, including Belgium, Germany, the Netherlands and the United Kingdom, the promotion of offshore wind energy has been a strong driving force behind the development of national MSP frameworks". Acknowledgement of this accelerating effect of

[1] In the UK, the term 'marine planning' is used; elsewhere the term 'marine spatial planning' is more common [3] [1].
[2] Qiu & Jones [4] reported similar factors driving the EU's embrace of marine spatial planning (MSP).

Comment [n1]: Perhaps still include a section of the first draft : demands upon marine resources and for the use of the seas are now coming into conflict...there is insufficient coordination of these activities and too little consideration of their environmental effects.

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renewable energy on the development of MSP extends beyond European waters [50 and Douvre Ehler 2009]. In the UK, the central element in the fourth factor is bureaucratic efficiency: the offshore wind farm development Rounds One and Two did not proceed as quickly as anticipated, and it was claimed by critics that the cumbersome consents process [7] contributed to this slow rate of progress [8]. The National Grid reported that one manufacturer of renewable energy revised downwards its short- to medium-term forecast for supplying the UK offshore market because of delays in the consenting, planning and regulatory processes [9]. If the 2020 target was to be reached, a radical change in the consents procedure was required [10].

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The Marine and Coastal Access Act (MCAA) (2009) set out the statutory basis for a new system for regulating marine activities in the UK [3]. It had eight components: the establishment of the marine management organisation (MMO); a marine planning system; a reformed marine licensing system; a new mechanism for marine nature conservation; modernisation of inshore fisheries management and enforcement; a new authorisation scheme for migratory and freshwater fisheries; improvements in coastal access; and a more 'joined-up' approach to coastal and estuarine management [11]. In short, the Act introduced a long-term vision to regulate marine activities [12] through a new UK-wide system of MSP which promised not only to bring a strategic approach to the use of marine space [13] by balancing the many economic, social, and environmental demands that are placed on the marine environment against its capacity to accommodate these demands [14] [15], but also to draw together into a single, streamlined and transparent licensing decision process, consideration of environmental, human health and navigational safety factors as well as the interests of other users of the sea [8][16]. This new integrated approach marked a departure from existing decision-making processes that usually focused upon a single species, sector, activity, or concern [17]. Round Three of offshore wind farm leasing in England and Wales was approved by the UK government in 2009, administered by the new consenting process to speed up the rate of offshore wind farm development that had taken place under Rounds One and Two.

The present study evaluates this shift in UK policy on marine governance by means of interviews of key stakeholders and the growing literature on the subject. In the next section, the methods of the research are explained. Then the results of the research are set out in terms of four issues raised by this shift of direction in UK marine governance. The first and second issues - holism and centralisation – are associated with factor 1 (congestion); while the third and fourth issues - streamlining and renewable energy – are associated with factor 2 (offshore wind farms). The conclusion summarises the findings of the study and their implications.

2. Methodology

Both primary and secondary data were used for this study. The primary data was derived from key informant interviews, using purposive [18] and 'snowball sampling' techniques for selecting interviewees [19]. The purpose of the interviews was to gain an insight into the attitudes of key stakeholders towards the MCCA and the subsequent creation of the MMO. An initial email to respondents included an assurance that they would remain anonymous in the final document [20]. A total of 24 respondents from five categories of stakeholders were interviewed during May-June 2010: 7 developers; 5 regulators; 5 environmentalists; 4 scientists; 2 planners; and 1 whose affiliation was withheld. The interviews were carried out either face–to–face, or by telephone/video conferencing, each interview lasting between 20 minutes and an hour [21]. A structured questionnaire comprising both open and closed questions was used but conducted as a semi-structured conversation to gain an insight into perceptions and opinions of stakeholders and to give them the opportunity to elaborate on topics which they felt were important [22]. The questionnaire included questions about the MMO (its role, marine licensing system, mode of interaction with developers, governance structure, and likely impact on consent time); questions about marine (spatial) planning (its timing in relation to licensing, and its likely impact on future offshore windfarm development); and questions about constraints on the offshore windfarm industry and the likelihood of the UK attaining its 2020 renewable energy

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targets. The interviews were recorded, transcribed and thematically coded using Nvivo 8 software. Secondary data was obtained from official documents, grey sources and the academic literature.

3. Results

From the primary and secondary data obtained in this study, four issues revealed tension between the aspirations of the new mode of marine governance and the challenges it faced.

3.1 Holism

The most prominent element in the new mode of marine governance is its holistic approach. As Fletcher et al [23, p. 3] put it, "The UK government's approach to marine planning is...holistic, integrating environmental, social, and economic concerns for all sectoral interests to achieve the sustainable development of UK seas". Many commentators welcomed MSP's holistic approach as an improvement on the previous ad hoc approach. For example, Day [24, p. 542] said that "A whole-of-government, ecosystem-based approach to marine management is the only way to coordinate conflicting uses whilst maintaining environmental integrity for future generations". Gibson and Howsam [8, p 4699-4700] approved of MSP because "more and larger projects bring a greater risk of cumulative and in-combination effects, which need to be understood".

This holistic approach had three elements. First, the new marine policy replaced an ad hoc process with a strategic process [1], involving "a series of integrated regional marine plans" [3, p. 342]. Interviewee 9 (an environmentalist) described the existing ad hoc approach: "*everything is taken on a case-by-case basis and there is no real big plan*". The second element of the holistic approach was that MSP was to follow national guidelines to be set out in the Marine Policy Statement (MPS) [8], which would incorporate, as Kenyon [25] pointed out, the government's priorities for marine policy in the UK. The third element of holism was institutional – the establishment of MMO to carry out the

new marine planning policy. As DEFRA [26, p. 8] noted, MMO "brings a number of marine management activities from across Government together in a single entity". The MMO took over the work of the Marine and Fisheries Agency (MFA) and combined it with new roles, mainly in marine planning and renewable energy projects, taken from the Department of Energy and Climate Change (DECC) and the Department for Transport (DfT). Indeed, MMO [27, p. 4] claimed that it was "the first organisation in the world to develop an integrated planning system for the marine area, mirroring the terrestrial planning regime in England which has been in place for over 60 years" (see also [28]). Interviewee 20 (a marine scientist) described the MMO as a holistic decision-maker: *"the MMO is very concerned to make future planning and strategic decisions...done on a holistic basis...to move forward from the traditional process which has been to have fisheries looked after by one organisation, dredging by another, wind farms by another...there is a much more holistic approach to it...the whole picture is taken into account...taking account of all the stakeholders that can be affected or could be interested"*.

The reaction of our interviewees to these holistic aspirations of the new marine planning policy was generally favourable. For example, three developers expressed their approval. Interviewee 3 said that "*I think it's a positive thing personally as it's quite a fragmented system at the moment where you have no marine planning, but you have conservation issues and then you have enforcement issues and consenting issues and they're all quite fragmented. To have them all dealt with together I think is probably a positive step forward*". Similarly, Interviewee 17 said "*What we've found in Round Two is that the government have come up with strategic areas that we were meant to put wind farms in. We put wind farms in those areas and now they're being designated for nature conservation purposes and that's been really frustrating. Whereas if you have a strategic system where you say that's an area for wind farms, that's an area for conservation, that's an area for fisheries, then theoretically there are going to be fewer conflicts to resolve*". Interviewee 6 affirmed that it "*adds certainty...obviously if your company is investing millions of pounds in an offshore wind farm project you want absolute certainty before you go ahead that you're not going to receive new restrictive licenses because it's*

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I liked the table idea, and we should work on this next draft... but no time if submitting today – and it is very Natural Science – I admit – I love a good table!

Gav table? Table xx highlights the general feeling of respondents.
Group [1]

sitting on an MPA". Statutory consulteeMoreover, an environmentalist, Interviewee 9, an environmentalist, endorsed the new regime for its greater consistency: "*at the moment the...context in which decisions are made is obviously very dubious because everything is taken on a case-by-case basis and there is no real big plan and certainly future developments...are really quite subject to differing regimes in different parts of the country and you know it's just not very well controlled...there's a lot of activity that goes on that has potentially quite a lot of environmental impacts that isn't regulated and because we don't have any kind of planning system. There's nothing really to say what should happen where, so I think from a holistic management point of view having some sort of planning system is absolutely crucial*".

In contrast, the regulator, interviewee 20 (a marine scientist) described the MMO as a holistic decision-maker: "*the MMO is very concerned to make future planning and strategic decisions...done on a holistic basis...to move forward from the traditional process which has been to have fisheries looked after by one organisation, dredging by another, wind farms by another...there is a much more holistic approach to it...the whole picture is taken into account...taking account of all the stakeholders that can be affected or could be interested*".

However, tThe UK's holistic approach to marine governance faced three significant challenges. First, critics argued that it lacked sufficient detail and specificity. For example, Statutory Consultee Interviewee 9 (an environmentalist) said that "*I think the policy statement by itself is quite tricky. I don't think it's as detailed and as specific as people hoped it would be. I know that one of the reasons for that is that it has to apply to...the whole of the marine area and not just specific areas or not just English waters...it's a fairly good summary of existing legislation and positions but it doesn't go hugely further...it's going to be quite difficult to use that on its own and I think there is still going to have to be quite a lot of local decision making which is still going to be open to interpretation*".

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The second challenge to the holistic approach was that MSP came too late for much wind farm planning, MPA siting, and fisheries zones, because most of their locations have been decided before it was fully in operation. It was, however, recognised that because of external pressures there appeared

little alternative to continue licensing offshore wind before the marine planning regime was fully established. Both developers (Interviewee 6) and environmentalists (Interviewee 24) said there was a lack of synchronisation between the licensing system and the planning system. The aim was 'plan-led marine management' whereby licensing decisions would be influenced by marine plans [29], but the reality was that MSP would take more than ten years to complete, and by that time, the UK expected to have 25GW of wind power commissioned [30]. All groups interviewed recognised the inherent problems of licensing such large developments before marine plans were in place. Interviewee 12 (an environmentalist) commented that "*ideally the Marine Policy Statement should have been done, then the regime, then marine spatial planning, then licensing*", whilst Interviewee 24 (another environmentalist) observed that "*the bulk of wind farm development will be decided and located by the time marine spatial planning really kicks off, so it's a little bit of the cart before the horse*". Moreover, the staggered introduction of marine plans raised the question of how projects in different marine plan zones would be affected. The first marine plan zone, the East Inshore and East Offshore zone, contained three of the larger Round Three development zones with a potential installed wind farm capacity of 24000MW [31]. It was anticipated that this marine plan would be adopted in 2014, and from that date onwards, any consenting decisions had to have regard to it [29]. But licensing decisions for the remaining Round Three developments elsewhere may not be required to take into account marine plans.

However, it was recognised that because of external pressures there appeared little alternative to continue licensing offshore wind before the marine planning regime was fully established. Interviewee 22 (a planner) remarked that "*we'd never meet the 2020 targets because the planning process won't be completed until after 2020*". There was also apparent optimism that over the course of time, marine planning would have the desired effect upon licensing decisions. For example, Interviewee 9 (an environmentalist) said that "*I think it's going to be difficult for the first few years whilst some areas have plans and some don't. But once it's been established and every plan area is*

completed...I think it's going to deliver a lot more sustainable management and sustainable use than we could hope to achieve with the current sort of system". Similarly, Interviewee 12 another environmentalist) stated that *"As long as they can come in and have influence on future licensing decisions it should be OK. It does give you a framework, a spatial framework for managing things"*. Nevertheless, it may turn out that marine plans are influenced more by licensing decisions than the other way round [30].

The third challenge was that ~~the holistic approach failed~~more needed to be done to integrate marine and terrestrial planning policy. Interviewee 14 (a scientist) said that MSP "*ignores some very important biophysical linkages between terrestrial and marine systems... there are infrastructure issues that are terrestrial based: how about road access to the coast, how about infrastructure such as water, electricity and so forth, how about the erection of sheds for storage of materials, how about boat landing places which come under land use planning?...there is a lack of statutory guidance and authority to deal with these things that really transcend the boundaries between the terrestrial and marine environment"*. Similarly, Interviewee 20 (another scientist) said that *"to have a hard and fast division between marine and terrestrial could raise issues...if it is supposed to be holistic, to just look at what is below the water line and ignore what is above and not recognise it as necessary for integration"*.

3.2 Centralisation

The second issue is that the UK's new approach to marine governance was inherently centralised. The whole point of establishing an integrated system of MSP was to ensure coordination of decision-making, and this required a national plan administered by a national body. MMO is a NDPB (non-departmental public body) or QUANGO (quasi-autonomous non-governmental organisation), and in the academic literature, some writers hold that NDPBs/QUANGOs are subject to political control [32], while others hold that they possess an element of independence from traditional politics [33].

Political dependence rather than political independence is evident in the structure and function of the MMO. Its much-vaunted status as a NDPB/QUANGO does not give it significant independence from its governmental sponsors, especially DEFRA, its main sponsor.

It is true that MMO claimed some degree of autonomy in its decision making. For example, Howell [34, p. 5] wrote that "As an arms-length NDPB we are ultimately accountable to DEFRA's Secretary of State, but our decisions are fully independent and free from political interference", and MMO [35, p. 6] stated that "As the champion of sustainable development in the marine area, the MMO intends to be independent and authoritative". It is also true that several interviewees said they valued this autonomy. For instance, Interviewee 24 (an environmentalist) held that *"the strength of having the MMO as a non – departmental public body is that they're not as aligned with a parent department as the MFA were so they are more independent...in theory they should be able to evaluate the value of different projects more objectively and more independently"*. Interviewee 9 (another environmentalist) agreed: "*I think it's a really good thing that they're [MMO] independent because their role particularly on the licensing and planning side is that of...an honest broker and that's what they're set up to do...I think being independent gives you a lot more autonomy to make decisions that are less political...than certainly in the past when it's been government departments or offshoots of government departments making the licensing and management decisions...[Given] the amount of sort of political pressure there is on that kind of political development* [offshore renewables], *I think it's quite good that...the MMO have got the independence to make the right decisions based on everybody's opinion rather than being swayed perhaps or come under more pressure from a government department"*.

However, as Howell [36, p. 2] acknowledged: "As a non-departmental public body, the MMO has a clear remit to deliver government policy, such as the Marine Policy Statement, and to be the responsible authority for relevant legislation – the Marine and Coastal Act 2009 (MCCA)...At the policy level, responsibility for decision making lies with government departments" – i.e. DEFRA;

DECC; DCLG; MoD; and DfT. Similarly, DEFRA [26, p. 8) stated that "As an arm's length body, the MMO is expected to work closely with Defra, joint sponsors and other bodies within the delivery network, thereby helping to ensure that...it supports and contributes to the Government's aims and priorities as effectively as possible" (see also [37]). Likewise, MMO [38, p. 7, 8] acknowledged that "As an executive NDPB, the MMO exists to deliver the Government's priorities...the MMO contributes to delivering the priorities of our Government sponsors".

However, the new mode of marine governance's focus on centralisation was challenged by the discourse of stakeholder engagement which held that the centralising tendency undermined the participation principle. The danger of centralisation was that the MMO risked being a top-down instrument of technological control: "the dominant logic remains that of scientific rationalism, filtered through the precepts of environmental and resource management" [1, p. 186]. This model has long been discredited in terrestrial planning not least because of its implied assumption of scientific certainty – an assumption that is even more implausible in the complex world of marine ecosystems – and its democratic deficit. Many commentators affirmed the link between marine planning and stakeholder participation. For example, Jay [1, p. 178, 183] listed one of the much-vaunted benefits of MSP as "providing a mechanism for stakeholder interests to be represented and reconciled", and identified one of the seven key themes or principles [3] of MSP as "Stakeholder involvement...emphasis is placed upon the need for stakeholder involvement in order for MSP to be effective" (see also [39] [40] [41] [42] [43] [44] [45] [46] [3] [23]).

It is true, as Ritchie & Ellis [43, p. 707] [Gavin, is this true? If so, can you add details and refs?] noted, that DEFRA promised that "all marine users will have an opportunity to get involved in the planning process", and that there would be opportunities for "extensive stakeholder involvement and consultation". It is also true that in its implementation of marine planning, the MMO identified 11

Comment [n4]: http://archive.defra.gov.uk/environment/marine/documents/legislation/mab-policy.pdf

MCAA policy statement 2009

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[3] Jay [1, p. 180-185]'s seven key principles of MSP are as follows: ecosystem-based; primacy of scientific knowledge; conservation/environmental imperative; area-based; acceptance of development needs; integration of sectors and of the land and sea; and stakeholder involvement.

regional marine plans which it expected to develop with strong stakeholder input. Fletcher et al [3, p. 346] even claimed that "stakeholder involvement in MSP represents a significant democratisation of marine governance in the UK which has previously been driven by centralised policy with limited opportunity for stakeholder input".

However, in the view of interviewee [???? Gavin, can you tell me which interviewee said this?], "*At the minute we feel there is inadequate consultation with bodies like us*". Jones et al [11, p. 1] reported that in all the 13 case studies of MSPs around the EU for the EU-funded MESMA (Monitoring and Evaluation of Spatially Managed Marine Areas) Project, a very "top-down approach" was followed, in that although opportunities were afforded for stakeholder participation at certain phases of the projects, these were often "disconnected by design" from actual decision-making, and as a result, there was "a growing sense of apathy about such 'talking shops'".

Comment [n5]: from Lucy Greenhill at the JNCC

Guidance is something that keeps coming up, in that developers need enough the guidance and the right guidance when going through the process. Do you think there is sufficient guidance in place for developers?

They always seem to know whats happening, but they probably have legal people in house who are digging this stuff out so it's always surprising to me how much they know about it and whether that was easy for them to find or not I'm not sure, I know there was a big period when it was just grey but that was because nobody really knew what was happening the MMO didn't. marine Scotland are more proactive I would say in terms of getting out guidance but it some ways they want to get it out too soon so at the minute we feel there is inadequate with bodies like us, so they can have guidance out which is fair enough but it's not even been agreed properly with the nature conservation agency...and once it's out there it will just be stuck there and we'll just have to wrestle with it.

3.3 Streamlining

The third issue which raised tension was streamlining. Streamlining had two elements: one-stop-shop; and frontloading. On the one-stop-shop, Gibson and Howsam [8] reported that their study found that the existing system was cumbersome, leading to delays in the implementation of offshore wind farms projects, thereby imperilling the UK's is strategy to meet its renewable energy target, but that the new consents process under the MCA Bill was more streamlined, in that it consolidated the multiple consents required into a single overall consent, to be granted by a single body (MMO), with a definitive time frame for decision [37]. Many interviewees expressed approval for this streamlined system. For instance, Interviewee 7 (an environmentalist) said that "*It should be helpful for the industry. It should mean that instead of applying for three different consents, the fact that they can just draw up one application...will help them*". Similarly, Interviewee 19 (a scientist) said that "*The MMO's claims were that they wanted to make it easier. They wanted to have one place where the different regulations, the planning, the licensing could be more easily coordinated*". Interviewee 4 (a

regulator) said that "*Streamlining the process is going to make a huge difference to them because they can just come and knock on one door and that will give them access to all they need to get their licenses*". Interviewee 3 (a developer) said that "*It should make matters clearer...you can speak to one agency and in theory they should know all the answers...it will be...difficult...for one agency to deal with all of the issues and complaints that come forward but I...think that they will certainly be able to give a more consistent approach to projects coming forward because they have all of the responsibilities under one roof now*".

However, the one-stop-shop policy was challenged for three reasons. First, Interviewee 24 (an environmentalist) claimed that the so-called one-stop-shop was an illusion: "*there is still a separate body providing the detail and construction details...and a separate body providing the overall project consent, so it hasn't created that one-stop-shop that it was meant to do, so I don't think it's actually changed terribly much from the offshore wind farms point of view...I don't think it's actually really simplified the process because they will just use the same information to apply for the different licenses as previously [and] they still have to go to different people for different parts of their project consent and condition*". Second, several interviewees did not think the one-stop-shop would lead to speedier decisions. On the question 'Will the new system make the process quicker?' 60% of external respondents said no, and 26.6% said yes. Interviewee 22 (a planner) was sceptical about the prospects of greater speed in the consenting process because the main cause of delay was the lack of environmental data, not bureaucratic red tape: "*the reality is that the delays for offshore renewables in the past have not been because of the planning system...it's been because of uncertainties with environmental effects. The needs for multiple layers of data, concerns by Natural England or SNH or whoever, those are the things that have driven delay...and that's a characteristic of all of these consenting regimes. They all need EIA and they all only give you a consent if there's no significant environmental effects*". Third, Interviewee 10 (a regulator) warned of the danger posed by the one-stop-shop of regulators getting too close to developers: "*you can engage, you can help, you can facilitate, you can promote, but you must remember you must have a degree of autonomy that allows*

you to take a decision at the end that is as unaffected as you possibly can, and that's what you've got to maintain, a very clear steer as you go through a process. Over two years can you imagine how difficult it is to remain autonomous, you're dealing with a project that might be contacting you weekly, you're bound to strike up a relationship with people".

Frontloading, or 'pre-application engagement', is the process of providing all the necessary information up front, to avoid the delays caused by subsequent requests for further data [36] [8]. Interviewee 21 (a regulator) said that "*they are trying to get any issues resolved prior to application*". However, frontloading faced three challenges from critics. First, Interviewee 24 (an environmentalist) claimed that frontloading would not speed up the planning process: "*I think it will be longer for individual projects...I think developers need to factor in another six months to a year for their individual project timescales...you have to put in a lot more work up front to then get a quicker decision, so I think decisions should be made a lot more quickly but I think the application process and getting an application together has been made longer as a result*". Second, Gibson and Howsam [8, p. 4699] said there were concerns from industry that "developers are made to collect data which are not strictly necessary for consents". Third, Interviewee 7 (an environmentalist) pointed out that frontloading required considerable guidance, which might not be available: "*one of the key aspects that each organisation can do is provide sufficient guidance that before a developer gets too far down the line that they are aware of the requirements that each organisation wants...I don't think there is sufficient guidance either North or South of the border*". As a result, decisions being made were based on insufficient information [47].

3.4 Commitment to renewable energy

The fourth issue concerned the commitment to renewable energy. This issue raises the broader question of whether MSP is primarily an economic or an ecological policy instrument. Qiu & Jones [4, p. 183] distinguished between 'soft' sustainability, which prioritises economic goals on the

assumption that loss of natural capital can be compensated by improvements in technology; and 'hard' sustainability, which prioritises ecological goals on the assumption that once lost, natural capital is irreplaceable, and they (perceptively) noted that "whether MSP should be based on 'hard' or 'soft' sustainability is likely to be a recurring theme in...debates...concerning MSP". For some observers, a central objective of the UK's new marine planning policy was to speed up the development of offshore renewable energy (soft sustainability). The announcement by the UK government in late 2013 to transfer windfarm renewable subsidies from onshore to offshore installations added credence to that view. At present, offshore wind meets about 3% of the UK's electricity demands, but this is likely to rise to 20% to fulfil the country's legally obligatory EU target for renewable energy by 2020. The prospect of £60 billion investment and 30,000 jobs that such an expansion would generate was clearly attractive to the government (FISHupdate.com 22.1.14). As Peel & Lloyd [48] explained, the marine economy is very important to the UK, since it employs nearly 430,000 people and generates 3-4% of GDP.

According to Gopnik [44, p. 1140], in its primarily economic focus, UK policy on MSP was more in line with European than with US practice: "European MSP was motivated in large part by economic goals, such as renewable energy targets that could only be met by including offshore locations [whereas] much of the early support for MSP in the U.S. was generated by the academic and environmental advocacy communities that saw it as a way to protect marine ecosystems". For example, Gopnik [44, p. 1144, 1147] reported that one US fishing representative said that "MSP is just a new way to spell MPA", and that US ENGOs viewed MSP as "a practical approach to begin implementing ecosystem-based management" (hard sustainability). Like Gopnik, Claydon [49] saw the UK's economic stance as a contrast with the conservationist stance of countries like Australia, Canada, New Zealand, and the USA. However, unlike Gopnik, Qiu & Jones [4, p. 189] claimed that the EU's main focus on MSP was ecological, as part of its commitment to international obligations such as CBD and WSSD, and that "the MSFD...provides the legal basis for implementing ecosystem-

based and integrated MSP". And also unlike Gopnik, White et al [50] saw evidence of renewable energy as a catalyst for MSP in Massachusetts.

In line with Gopnik's view, however, the European Parliament voted in late 2013 to downgrade the emphasis on the ecosystem-based approach in the objectives of the proposed Directive on Maritime Spatial Planning (MSP) and Integrated Coastal Management (ICM), and to upgrade the emphasis on economic growth in the shape of the Blue Economy (*Fishnewseu.com* 5.11.13). Maria Damanaki (European Commissioner for Maritime Affairs and Fisheries) welcomed the Parliament's support, saying that "MSP will help to create an optimal investment climate for maritime sectors and give operators more certainty as to what opportunities for economic development are possible" [51]. Jones et al [11, p. 2] reported that in the case studies of the EU MESMA Project, it was clear that "the 'over-riding' importance of strategically important infrastructure development projects" (such as offshore windfarms) trumped all other interests". Significantly, over 60% of the budget authorised by the EU for the implementation of its IMP during the period 2011-2013 was allocated to develop cross-sectoral management instruments, including MSP, whereas only 8% was allocated to protect the marine environment [4]. De Santo [52, p. 35] explained that "This [economic] prioritisation is one reason why the EU uses the term 'Maritime Spatial Planning' whereas other countries refer to 'Marine Spatial Planning': the term 'maritime' has a more economic and job-focused connotation".

Nevertheless, Pomeroy & Douvere [40, p. 822] linked MSP with an ecosystem-based approach (EBA) to marine management (hard sustainability): "MSP is a key aspect in making ecosystem-based sea-use management a reality". So did Ehler [41], Day et al [24], Trouillet et al [53] (albeit as a 'secondary' principle), Calado et al [42, p. 383] (though noting that "Despite the growing acceptance of an ecosystem-based principle, it has only been applied in few marine spatial plans"), and De Santo [52] (though interpreting EBA as embracing the entire ecosystem, including humans). Moreover, Suarez de Vivero & Rodriguez Mateos [54, p. 18] connected MSP in several EU countries to compliance with the EU's environmental (MSFD) "rather than to carry out proactive planning development of

maritime sectors" [4], though (puzzlingly) elsewhere Suarez de Vivero et al [55, p. 623] acknowledged that MSP "is instrumental in character and aimed at either achieving a specific strategic goal (the production of offshore wind energy, for example), or for solving conflicts between uses that are competing for the same space").

One way of reconciling these contrasting interpretations of MSP as an economic versus an ecological instrument is to see them as sequential and/or complementary. For instance, Taljaard & Niekerk [56, p. 74] held that MSP was initially an ecological tool used to progress MPAs such as the Great Barrier Reef Marine Park (GBRMP), but it has since morphed into a multi-use MSP, combining both economic and ecological objectives: "the multi-use MSP process must be an EBA where the valuation of social and economic aspects are integrated systematically with science-based ecological valuations". The fact is that most interpretations of MSP are combinations of economic and ecological objectives: the difference between them lying in whether the primary emphasis is on economic or on ecological objectives. In the UK case, it seems that the primary emphasis is economic.

The UK's stance of prioritising economic over ecological considerations attracted enthusiastic support from some developers. For instance, Gloyer [57] from Scottish Power Renewables, wrote that "We welcome the statement that there is a presumption in favour of development". However, this presumption faced two respondent challenges; from sceptical developers; and from adaptive management advocates. The sceptical developers argued that despite its ambitions, the UK would not reach its 2020 offshore renewable targets. For example, Interviewee 17 said that *"we haven't met any of the other targets yet. I think we had 2010 targets and presumably we had targets before that, none of which we met...I suspect we won't meet a 2020 target because I don't ever remember meeting a target in the past"*. The challenge from adaptive management advocates was to reject rigid targets *per se*. For instance, Interviewee 5 (a developer) asserted that MSP should be pragmatic, not dogmatic: *"marine spatial plans will have to be very flexible in terms of what you can and cannot do"*. Interviewee 4 (a regulator) argued that MSP was not a definitive, but an iterative, process: "*The phrase 'full marine spatial', is like the phrases... 'full knowledge' and 'complete understanding', and you can never ever achieve that. You cannot say that we will not have a wind farm...until we have complete understanding of the environmental consequences. You can never have it: you don't have the complete environmental consequences of cutting the garden grass...full marine spatial planning implies it's a one-off and we've done it and it's full. It's not, marine spatial planning will be an iterative process - you'll do one and then you'll review it and it will just keep on going. It will be like painting the Forth Bridge*".

[4] "In Spain, the coming into force of the MSFD has resulted in the planning of the marine environment (including spatial planning) being an offshoot of this environmental initiative: an instrument at the service of this objective...the type of maritime policy and planning...as it is used in the recent Spanish Law is...not the most suitable instrument for driving change in the maritime economy towards the development of the advanced sectors (in knowledge, innovation and technology) that enable a transition to a new maritime regime" [54, p. 26].

5. Conclusion

This study of the new mode of marine governance adopted by the UK government has identified four areas in which the ambitious aspirations of the new policy have been challenged by key informants. First, the aspiration to achieve a holistic approach – i.e. a strategic plan which comprehensively takes account of all relevant factors and imposes a coherent set of priorities – was challenged by critics who argued that such a plan was too abstract; too elitist; too late; and too limited in scope. Second, the aspiration to centralise decision-making was challenged by critics who argued that it ran roughshod over stakeholder engagement. Third, the aspiration to streamline the consenting process was questioned by some critics who argued that the one-stop-shop was a myth; that it would not speed up consenting; and that it encouraged too close relations between regulators and developers; while frontloading would not necessarily save time and required expert guidance that was unlikely to be available because of the consenting bodies' lack of resources. Fourth, the aspiration to commit to renewable energy targets was challenged by critics who argued that such prescriptive goals were

unlikely to be met, and failed to recognise the need for adaptation. These are by no means the only challenges facing the UK's new marine planning system – on the contrary, further questions raised by commentators include how will marine and terrestrial governance be integrated [58]?; how will the enforcement of MSP regulations be resourced [23]?; and how will the success or failure of MSP be monitored [2]? [5]. The conclusion of our study is that policy makers need to take account of these and other challenges if the new framework of marine governance is to work effectively.

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I liked the table idea, and we should work on this next draft... but no time if submitting today – and it is very Natural Science – I admit – I love a good table!

Gav table? Table xx highlights the general feeling of respondents.

Group	In favour of holism	Criticism of holistic approach
Developers		
Regulators		
Statutory consultees		
Other		